# Information sheet for the course Statistics

University: Alexander Dubček University of Trenčín

**Faculty:** Faculty of Social and Economic Relations

Course unit code: VSP20 Course unit title: Statistics

**Type of course unit:** compulsory

### Planned types, learning activities and teaching methods:

2 hours of lectures / 2 hours of laboratory per week. 28 hours of lectures / 28 hours of laboratory per semester. In-class format.

**Number of credits:** 4

**Recommended semester:** 3<sup>rd</sup>

Degree of study: *I*.

**Course prerequisites:** none

## **Assesment methods:**

During the semester student completes two ongoing written tests. To obtain credits, students must obtain from each ongoing test at least 60% of the total score. Of the final test student must obtain at least 60% of the total score. From test student obtain a minimum of 90% of the total score to get the evaluation A. To obtain an evaluation B must achieve at least 85% of the total score. To obtain an evaluation C must achieve at least 80% of the total score. To obtain an evaluation D must reach at least 70% of the total score. To obtain an evaluation E must achieve at least 60% of the total score. From ongoing tests the arithmetic average closed evaluation during the semester. Lecturer may consider other student activities during the semester for evaluations during the semester. Final evaluation of the subject: weighted arithmetical average where evaluation during the semester has a weight of 1/3 and evaluation test has a weight of 2/3.

#### **Learning outcomes of the course unit:**

After completing the course, a student will have acquired orientation in the basic statistical concepts. Student will know the required wealth of theoretical knowledge of statistical methods. Student will be able to apply theoretical knowledge in accordance with the syllabus of the subject. After successful completion of a learning process, student will be able to make some assessment of statistical surveys and evaluations to understand some statistical surveys in accordance with the syllabus of the subject.

#### **Course contents:**

- 1. Subject, tasks, goals of statistics. Basic concepts of statistics.
- 2. The random variable and its dividing. The function of the density and distribution function.
- 3. Characteristics of the level and position.
- 4. Measures of variability.
- 5. Measures of skewness and kurtosis.
- 6. Fundamentals of the estimates. Point and interval estimation.
- 7. Interval estimation of the arithmetic average of the basic set.
- 8. Testing statistical hypotheses. Parametric tests.
- 9. Non-parametric tests.
- 10. Description and analysis of multivariate statistical series.
- 11. Estimation of the parameters of the regression function.
- 12. Estimates of correlation and determination coefficient estimate.
- 13. Description and analysis of time series. Potential uses of knowledge in the field of public administration.

### **Recommended of required reading:**

Grmanová, E.: Základy zo štatistiky – Praktikum. TnUAD, FSEV, Trenčín 2006

Ivanka, L. – Grmanová, E.: Štatistika. TnUAD, FSEV, Trenčín 1998

Cyhelský, L. – Kahounová, J. – Hindls, R.: Elementární statistická analýza. MANAGEMENT

PRESS, Praha 1996

Pacáková, V. a kolektív: Štatistika pre ekonómov. IURA EDITION, Bratislava 2003

Sodomová, E. a kolektív: Štatistika. Ekonóm, Bratislava 1998

**Language:** Slovak

## **Remarks:**

The subject is provided in the winter semester in the the second year of full-time study and parttime study. Subject is mandatory. Number of students in the laboratory group is 20 to 25 students.

<b>Evaluation history:</b>	Eva	luation	history:
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A	В	С	D	E	FX	
8.93	8.21	17.5	18.93	31.07	15.36	

Lectures: RNDr. Dana Jašková, PhD., doc. RNDr. Eva Grmanová, PhD.

**Last modification:** 

Supervisor: Doc. Ing. Ján Kútik, CSc.